

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A pointing device including:

a sensor substrate having a flat board form;

a stick member vertically provided on one surface of the sensor ~~substrate~~;
substrate, a portion of a bottom surface of the stick member in direct contact with the one
surface of the sensor substrate;

first and second pairs of strain sensors formed on another surface of the sensor substrate that is opposite to the one surface on which the stick member is provided, the strain sensors in the first pair and the second pair being respectively arranged in symmetrical relation to each other with respect to the stick member; and

slits formed in the sensor substrate, each slit being constructed from a first slit portion positioned at a side of one of the strain sensors in the first pair and a second slit portion positioned at a side of one of the strain sensors in the second pair, the first slit portion and the second slit portion being connected to form the slit in an L-shape.

2. (Original) The pointing device according to claim 1, wherein the sensor substrate is made of a flexible insulative material.

3. (Original) The pointing device according to claim 2, wherein the strain sensor is made of a resistance material which changes its resistance value with stress applied to the strain sensor.

4. (Original) The pointing device according to claim 3, wherein the resistance material is formed adhering onto the insulative material by a layer forming technique.

5. (Original) The pointing device according to claim 4, wherein the layer forming technique is selected from among a vacuum deposition method, a sputter method, and a vapor phase deposition method.

6. (Original) The pointing device according to claim 3, wherein the resistance material is a material mainly composed of carbon.

7. (Previously Presented) The pointing device according to claim 1, wherein the strain sensors in the second pair are arranged in a direction perpendicular to a line connecting the first pair of strain sensors while passing through a center of the stick member, and

wherein the strain sensors in both the first and the second pairs are arranged at 90° angular intervals around the stick member.

8. (Previously Presented) The pointing device according to claim 7, wherein the first slit portions and the second slit portions are respectively provided at both sides of each of the strain sensors, and the first and second slit portions which are connected are formed between the strain sensors adjacently arranged.

9. (Original) The pointing device according to claim 8, wherein four L-shaped slits are formed at 90° angular intervals around the stick member and the four L-shaped slits jointly form a cross-shaped intersecting area.

10. (Original) The pointing device according to claim 9 further including chip resistances capable of being trimmed, connected in series with the strain sensors correspondingly and arranged out of the intersecting area on the sensor substrate.

11. (Canceled).

12. (Previously Presented) The pointing device according to claim 21, wherein the connecting substrate section is produced by formation of cut-out portions from both sides of the sensor substrate in its width direction toward a center thereof.

13. (Previously Presented) The pointing device according to claim 1, further including:

an engagement portion protruding from a lower end of the stick member;

an attachment hole formed in the sensor substrate, in which the engagement portion is inserted; and

a fixing member for fixing the engagement portion of the stick member inserted in the attachment hole, the fixing member being attached from the another surface of the sensor substrate;

wherein the stick member is vertically provided on the sensor substrate in an engagement relation thereto.

14. (Currently Amended) A keyboard provided with a plurality of keys arranged on a keyboard substrate and a pointing device mounted on a part of an operating face of the keyboard, the pointing device including:

a sensor substrate having a flat board form;

a stick member vertically provided on one surface of the sensor substrate so as to protrude upward from the one ~~surface~~; surface, a portion of a bottom surface of the stick member being in direct contact with the one surface of the sensor substrate;

first and second pairs of strain sensors formed on another surface of the sensor substrate that is opposite to the one surface on which the stick member is provided, the strain sensors in the first pair and the second pair being respectively arranged in symmetrical relation to each other with respect to the stick member; and

slits formed in the sensor substrate, each slit being constructed from a first slit portion positioned at a side of one of the strain sensors in the first pair and a second slit portion positioned at a side of one of the strain sensors in the second pair, the first slit portion and the second slit portion being connected to form the slit in an L-shape.

15. (Currently Amended) An electronic device provided with a keyboard including: a plurality of keys arranged on a keyboard substrate and a pointing device mounted on a part of an operating face of the keyboard; a controller for controlling various data input with the keys on the keyboard; and a display for displaying the data under control by the controller;

wherein the pointing device includes:

a sensor substrate having a flat board form;

a stick member vertically provided on one surface of the sensor substrate so as to protrude upward from the one ~~surface~~; surface, a portion of a bottom surface of the stick member being in direct contact with the one surface of the sensor substrate;

first and second pairs of strain sensors formed on another surface of the sensor substrate that is opposite to the one surface on which the stick member is provided, the strain sensors in the first pair and the second pair being respectively arranged in symmetrical relation to each other with respect to the stick member; and

slits formed in the sensor substrate, each slit being constructed from a first slit portion positioned at a side of one of the strain sensors in the first pair and a second slit portion positioned at a side of one of the strain sensors in the second pair, the first slit portion and the second slit portion being connected to form the slit in an L-shape.

16. (Original) The pointing device according to claim 3, wherein each of the strain sensors is formed with a plurality of windows in which the resistance material is absent, the windows being arranged in aligned relation to a line connecting the pair of the strain sensors while passing through a center of the stick member, and also each of the strain sensors is formed with a notch which is made by a trimming process of irradiating a laser beam to the strain sensor along the alignment direction of the windows.

17. (Original) The pointing device according to claim 16, wherein the trimming process makes the notch so that an endpoint of the notch is received within the window.

18. (Original) The pointing device according to claim 16, wherein the resistance material is formed adhering onto the insulative material by a thick layer printing technique.

19. (Original) The pointing device according to claim 18, wherein the resistance material is a ruthenium material.

20. (Original) The pointing device according to claim 19, wherein the ruthenium material is ruthenium dioxide.

21. (Currently Amended) The pointing device according to claim 1, wherein the sensor substrate includes:

a strain detecting substrate section on which the stick member and the strain sensors in both the first and the second pairs are disposed, the strain detecting substrate this section being used for detecting detects an amount of strain on the strain detecting substrate section by means of the strain sensors, the strain being caused by operation of the stick member; member directly on the strain detecting substrate section; and

a signal processing substrate section for signal processing the strain amount of the sensor substrate detected by the strain detecting substrate section;

wherein the strain detecting substrate section and the signal processing substrate section are connected through a connecting substrate section that is narrower in width than both the strain detection substrate section and the signal processing substrate section.